	Application No.	Applicant(s)
Notice of Allowability	10/619,349	HARJANTO, ANDY
	Examiner	Art Unit
	Patrick A. Darno	2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *08/28/2007*.

2. ☒ The allowed claim(s) is/are *1-18,28,31 and 32*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

WILSON LEE
PRIMARY EXAMINER

DETAILED ACTION

1.   Claims 31-32 are new. Claims 19-27 are canceled. Claims 1 and 9 are amended. Claims

1-18, 28, and 31-32 are allowed over the prior art of record.

2.   An Examiner's Amendment to the record appears below. Should the changes and/or

additions be unacceptable to Applicant, an amendment may be filed as provided by 37 C.F.R.

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the Issue Fee.

EXAMINER'S AMENDMENT

3.   **Claim 9:** (Currently Amended) A computer-readable medium having computer-

executable instructions for a database server of a runtime environment platform to provide a Web

service of discovering other Web services by accessing a database directory of Web services,

comprising computer-executable instructions for:

        receiving, at a Web service, a query from a client;

        in response to receiving the query from the client, the Web service:

                accessing source code having class definitions compiled into an intermediate

        language of a runtime environment;

                converting the ~~complied~~ compiled source code in the intermediate language of the

        runtime environment into a schema-based language for describing Web services in

        description documents;

                sending, in response to the query from the client, a description document to the

        client in the schema-based language, the description document describing a Web service

which interacts with the server to discover other Web Services listed in a database

directory of Web services, the description document containing:

class definitions for a generic object class;

a plurality of object type classes derived from the generic object class,

wherein each of the plurality of object type classes corresponds to a type of object

in the database directory of Web services;

a Web service class that includes a plurality of database operation methods

defined within the Web service class, the plurality of database operation methods

being defined for operating on instances of database objects within the database

directory of Web services, wherein each of the plurality of database operation

methods is defined for the generic object class and wherein the Web service class

is derived from a parent class;

receiving a request message from the client for performing a requested database operation

method, the request message including a serialized object for the requested database operation

method;

deserializing the serialized object;

identifying an object type and parameters of the deserialized object; and

accessing the database directory of Web services to carry out the requested database

operation method based on the object type and parameters of the deserialized object.

Claim 32: (Currently Amended) A server computing system connected to a database directory

and a client computing system over a computing network, the server computing system being

configured to enable the client computing system to discover Web services by the database

directory, comprising:

a processor; and

computer-readable media having stored theron computer-executable instructions that,

when executed by the processor, cause the server computing system to access a Web service, the

Web service being configured to:

receive a query from a client;

in response to receiving the query from the client:

access source code having class definitions compiled into an intermediate

language of a runtime environment;

convert the ~~complied~~ compiled source code in the intermediate language

of the runtime environment into a schema-based language for describing Web

services; and

send, in response to the query from the client, a description document to

the client in the schema-based language, the description document describing a

Web service which interacts with the server to discover other Web services listed

in a database directory of Web services, the description document containing:

class definitions for a generic object class;

a plurality of object type classes derived from the generic object

class, wherein each of the plurality of object type classes corresponds to a

type of object in the database directory of Web services;

a Web service class that includes a plurality of database operation

methods defined within the Web service class, the plurality of database

operation methods being defined for operating on instances of database

objects within the database directory of Web services, wherein each of the

plurality of database operation methods is defined for the generic object

class and wherein the Web service class is derived from a parent class;

receive a request message from the client for performing a requested database

operation method, the request message including a serialized object for the requested

database operation method;

deserialize the serialized object;

identify an object type and parameters of the deserialized object; and

access the database directory of Web services to carry out the requested database

operation method based on the object type and parameters of the deserialized object.

Allowable Subject Matter

4.   The following is an Examiner's statement of reasons for allowance: After reviewing the

Applicants remarks and granting further consideration to the cited prior art, it appears that the

prior art of record fails to teach and or suggest all the limitations of claims 1 and 31.

Specifically, the prior art of record fails to disclose wherein "in response to receiving the

description document, the client converting the description document from a schema-based

language for describing Web services into an intermediate language for a runtime environment."

It appears Short (non-patent literature titled: "Building XML Web Services for the

Microsoft®.Net Platform") teaches that a Web Service is contained in an .asmx file, and that

when the Web service is accessed, it is compiled by a .NET runtime. (Chapter 6, section 1).

Accordingly, the Web service is compiled by the server, and Short fails to teach wherein the

description document describing the service is compiled by the client, or wherein the client

converts a description document into any format, let alone an intermediate language for a

runtime environment, as recited in combination with the other claim elements. Indeed, the only

mapping in Short is between intermediate instructions and source code for the Web service,

rather than on a description document describing the service, as claimed.

Furthermore, it appears that the prior art of record fails to disclose each and every

element of claims 9 and 32. Specifically, the prior art of record fails to disclose "converting the

compiled source code in the intermediate language of the runtime environment into a schema-

based language for describing Web services in description documents." Short appears to

disclose that when a Web service is accessed the first time, its source code is compiled, and that

compiling can generate a mapping from the source code to Microsoft Intermediate Language

(MSIL). Therefore, Short teaches that code is converted by the Web service from source code

(e.g., C#) to MSIL. This is directly contrary to Applicant's claims in which, in response to

receiving a query from a client, code already compiled into the intermediate language is accessed

and converted into a schema-based language. Basically, Short teaches converting into an

intermediate language, whereas Applicant claims converting from the intermediate language.

The preceding limitations, when combined with the rest of the claim limitations recited in

claims 1 & 31 and 9 & 32 respectively, result in a combination of elements that is both novel and

unobvious over the prior art of record.

5.   Any comments considered necessary by Applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the

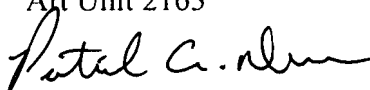examiner should be directed to Patrick A. Darno whose telephone number is (571) 272-0788.

The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                        Patrick A. Darno
                                        Examiner
                                        Art Unit 2163

PAD

                                        WILSON LEE
                                        PRIMARY EXAMINER